



# **F732 WIZARD™**

User's Manual





**F732 WIZARD™**

**USER'S MANUAL**



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Formula 732 Wizard™ - User's Manual

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## 1 GENERAL INFORMATION

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### 1.1 F732 WIZARD™ TERMINAL DESCRIPTION

For vast majority of small businesses and retailers, the complete Formula Wizard™ package represents the simplest and most cost-effective solution for entering the world of bar code data acquisition.

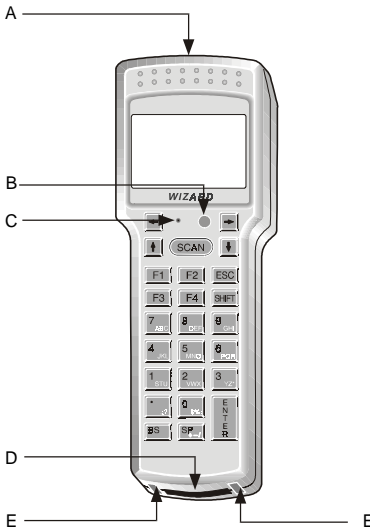
The Formula 732 Wizard™ (abbreviated in this manual to F732) portable terminal with its integrated laser scanner is at the heart of the Formula Wizard™ solution. Fast and reliable in reading the most common symbologies, it comes equipped with a handy 25-key alphanumeric keyboard and has a large display with icons. Data transfer to the PC takes place by simply placing the terminal into the Formula 952 Transceiver/Charger, which is equipped with a RS232 serial port, and using Systools™ 2001 - an effective software utility for transferring data to standard ASCII files.

By using the EasyGen™ software package, developers can quickly build personalized applications according to the required contexts by easily creating programs of average complexity in a Windows environment.

The EasyGen™ Demo Version with five ready-to-use example applications can be downloaded from the Datalogic web site free of charge. They cover the most common operating requirements in data collection, assisted sales, inventory and goods picking, thus making the Formula Wizard™ solution immediately productive.

The EasyGen™ package also includes Systools™ 2001 and OLE for Formula, the ActiveX software module that allows data to be integrated into applications such as Visual Basic, Excel, Access, Delphi, etc.

Furthermore, the Formula 732 terminals are fully programmable in C language using DS for Formula, thus solving even the most complex application needs.

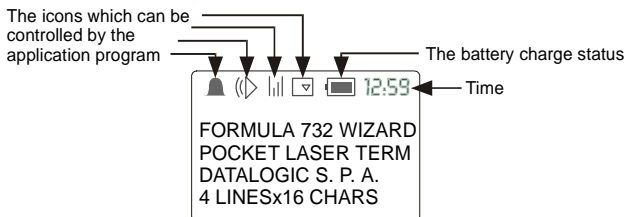


**Key:**

- A) Laser beam output window
- B) Two color LED
- C) Reset key (shielded)
- D) Cradle communications window
- E) Contacts for battery recharging



The F732 terminal has an LCD graphic display of 16 characters by 4 lines plus a line in the upper part of the display for the programmable icons:



## 1.2 DOWNLOADING EASYGEN™ DEMO

By completing the electronic form at our web site, [http://www.datalogic.com/pdc/easygen\\_demo.htm](http://www.datalogic.com/pdc/easygen_demo.htm), you can download for free EasyGen™ Demo Software package containing the following items:

- EasyGen™ Demo Version (user-friendly and highly productive application generator)
- Systools™ 2001 (efficient utility for data exchange with the F732 terminal)
- OLE for Formula (useful ActiveX software module for easy integration of Windows applications)
- The most common application examples (data collection, inventory, goods picking, assisted sales) available in 5 languages (English, French, German, Italian, Spanish)
- The complete documentation in PDF format.

## 1.3 APPLICATION DEVELOPMENT PROGRAMS

### "C" ANSI standard

The Formula 732 terminal is fully programmable in C language, thus solving even the most complex application needs.

- Development System for Formula Basic Line order nr. 94A104860
- CA51 "C" Compiler KIT order nr. 94A104890

## EasyGen™ Application Generator

By using the EasyGen™ software, developers can easily and quickly build personalized applications of average complexity in a Windows environment.

- EasyGen™ (Easy Application Generator Package)\* order nr. 94A104850.

\* 32-bit software for Microsoft Windows 95/98/2000/ME and NT (PC Pentium processor, 16MB of RAM, 30MB free hard disk space required)

## 1.4 PURPOSE OF THE MANUAL

The information contained in this manual is divided in two parts:

- For the everyday user:

**Chapters 1, 2, 4 and 7:**

supply general information, safety information, the F732 terminal operating instructions and technical specifications.

- For the person in charge of the management of the terminals and for those who are familiar with the Microsoft Windows 95/98/2000/ME and NT operating system and possess basic programming skills:

**Chapters 3, 4, 5, 6, and 7:**

supply instructions for the connection of F732 terminals to the host computer, and battery substitution.

## 1.5 CONTENTS OF PACKING

The F732 terminal package includes:

- nr. 1 F732 terminal complete with batteries;
- nr. 1 cradle F952 with power supply;
- nr. 1 cable 90A054000 for serial connection;
- nr. 1 user's manual
- nr. 1 test chart



**CAUTION**

*Remove all components from their packing and check that they are in good condition and that they correspond to the shipment documents.*

*Keep the packing and boxes in case it is necessary to send the terminal back for technical assistance. Damage caused by improper packing is not covered by the warranty*

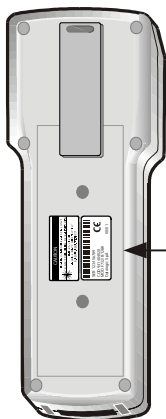


**NOTE**

*Rechargeable battery packs (NiCd) are not initially charged.*

*Therefore the first operation to perform is to charge them in the appropriate cradle (see par. 3.2.1 and par. 5.1).*

## 1.6 TERMINAL IDENTIFICATION



Serial number  
Production Code  
Model identification

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## 2 SAFETY REGULATIONS

---



**NOTE**

*Read this manual carefully before performing any type of connection or repair on the F732 terminal.*

*The user is responsible for any damages caused by incorrect use of the equipment or by inobservance of the indication supplied in this manual.*

### 2.1 GENERAL SAFETY RULES

Use only the components supplied by the manufacturer for the specific F732 terminal being used. The use of cradles other than those supplied with the F732 terminal or indicated in the list in the appendix could cause serious damage to the F732 terminal.

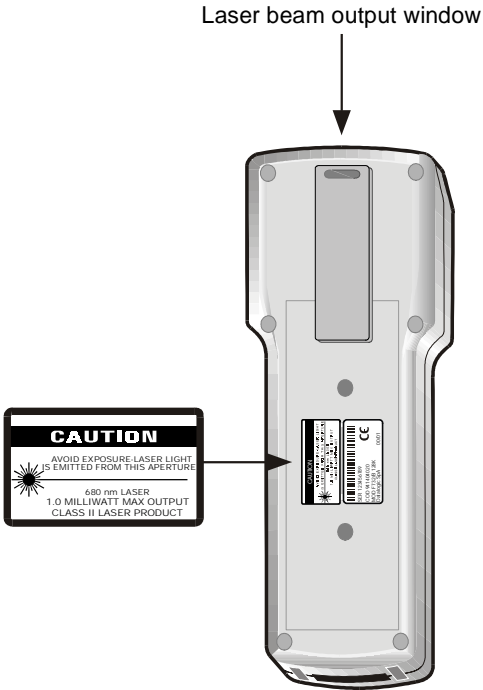
Do not attempt to disassemble the F732 terminal, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.

When replacing the batteries or at the end of the operative life of the F732 terminal, disposal must be performed in compliance with the laws in force.

Do not submerge the F732 terminal in liquid products.

## 2.2 LASER SAFETY

The laser light is visible to the human eye and is emitted from the window indicated in the figure.



I	D	F	E
LA LUCE LASER È VISIBILE ALL'OCCHIO UMANO E VIENE EMESSA DALLA FINESTRA INDICATA NELLA FIGURA.	DIE LASER-STRAHLUNG IST FÜR DAS MENSCHLICHE AUGESICHTBAR UND WIRD AM STRAHLAUSTRITTSFENSTER AUSGESENDET (SIEHE BILD)	LE RAYON LASER EST VISIBLE À L'OEIL MU ET IL EST ÉMIS PAR LA FENÊTRE DÉSIGNÉE SUR L'ILLUSTRATION DANS LA FIGURE	A LUZ LÁSER ES VISIBILE AL OJO HUMANO Y ES EMITIDA POR LA VENTANA INDICADA EN LA FIGURA.

I	D	F	E
LUCE LASER NON FISSARE IL FASCIO APPARECCHIO LASER DI CLASSE 2 MASSIMA POTENZA D'USCITA: LUNGHEZZA D'ONDA EMESSA: CONFORME A EN 60825 (1993)	LASERSTRAHLUNG NICHT IN DEN STRAHL BLICKEN PRODUKT DER LASERKLASSE 2 MAXIMALE AUSGANGSLEISTUNG: WELLENLÄGE: ENTSPR. EN 60825 (1993)	RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 PUISSANCE DE SORTIE: LONGUER D'ONDE EMISE: CONFORME A EN 60825 (1993)	RAYO LÁSER NO MIRAR FIJO EL RAYO APARATO LÁSER DE CLASE 2 MÁXIMA POTENCIA DE SALIDA: LONGITUD DE ONDA EMITIDA: CONFORME A EN 60825 (1993)

### ENGLISH

The following information is provided to comply with the rules imposed by international authorities and refers to the correct use of your terminal.

#### STANDARD LASER SAFETY REGULATIONS

This product conforms to the applicable requirements of both CDRH 21 CFR 1040 and EN 60825 at the date of manufacture.

For installation, use and maintenance, it is not necessary to open the device.



**CAUTION**

*Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light.*

The product utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid that the laser beam hits the eye of an observer, even through reflective surfaces such as mirrors, etc.

## ITALIANO

Le seguenti informazioni vengono fornite dietro direttive delle autorità internazionali e si riferiscono all'uso corretto del terminale.

### NORMATIVE STANDARD PER LA SICUREZZA LASER

Questo prodotto risulta conforme alle normative vigenti sulla sicurezza laser alla data di produzione: CDRH 21 CFR 1040 e EN 60825.

Non si rende mai necessario aprire l'appa-recchio per motivi di installazione, utilizzo o manutenzione.



**ATTENZIONE**

*L'utilizzo di procedure o regolazioni differenti da quelle descritte nella documentazione può provocare un'esposizione pericolosa a luce laser visibile.*

Il prodotto utilizza un diodo laser a bassa potenza. Sebbene non siano noti danni riportati dall'occhio umano in seguito ad una esposizione di breve durata, evitare di fissare il raggio laser così come si eviterebbe qualsiasi altra sorgente di luminosità intensa, ad esempio il sole. Evitare inoltre di dirigere il raggio laser negli occhi di un osservatore, anche attraverso superfici riflettenti come gli specchi.

## DEUTSCH

Die folgenden Informationen stimmen mit den Sicherheitshinweisen überein, die von internationalen Behörden auferlegt wurden, und sie beziehen sich auf den korrekten Gebrauch vom Terminal.

### NORM FÜR DIE LASERSICHERHEIT

Dies Produkt entspricht am Tag der Herstellung den gültigen EN 60825 und CDRH 21 CFR 1040 Normen für die Lasersicherheit.

Es ist nicht notwendig, das Gerät wegen Betrieb oder Installations-, und Wartungsarbeiten zu öffnen.



**ACHTUNG**

*Jegliche Änderungen am Gerät sowie Vorgehensweisen, die nicht in dieser Betriebsanleitung beschrieben werden, können ein gefährliches Laserlicht verursachen.*

Das Produkt benutzt eine Laserdiode. Obwohl zur Zeit keine Augenschäden von kurzen Einstrahlungen bekannt sind, sollten Sie es vermeiden für längere Zeit in den Laserstrahl zu schauen, genauso wenig wie in starke Lichtquellen (z.B. die Sonne). Vermeiden Sie es, den Laserstrahl weder gegen die Augen eines Beobachters, noch gegen reflektierende Oberflächen zu richten.

### FRANÇAIS

Les informations suivantes sont fournies selon les règles fixées par les autorités internationales et se réfèrent à une correcte utilisation du terminal.

#### NORMES DE SECURITE LASER

Ce produit est conforme aux normes de sécurité laser en vigueur à sa date de fabrication: CDRH 21 CFR 1040 et EN 60825.

Il n'est pas nécessaire d'ouvrir l'appareil pour l'installation, l'utilisation ou l'entretien.

**ATTENTION**

*L'utilisation de procédures ou réglages différents de ceux donnés ici peut entraîner une dangereuse exposition à lumière laser visible.*

Le produit utilise une diode laser. Aucun dommage aux yeux humains n'a été constaté à la suite d'une exposition au rayon laser. Eviter de regarder fixement le rayon, comme toute autre source lumineuse intense telle que le soleil. Eviter aussi de diriger le rayon vers les yeux d'un observateur, même à travers des surfaces réfléchissantes (miroirs, par exemple).

## ESPAÑOL

Las informaciones siguientes son presentadas en conformidad con las disposiciones de las autoridades internacionales y se refieren al uso correcto del terminal.

### NORMATIVAS ESTÁNDAR PARA LA SEGURIDAD LÁSER

Este aparato resulta conforme a las normativas vigentes de seguridad láser a la fecha de producción: CDRH 21 CFR 1040 y EN 60825.

No es necesario abrir el aparato para la instalación, la utilización o la manutenzione.



**ATENCIÓN**

*La utilización de procedimientos o regulaciones diferentes de aquellas descritas en la documentación puede causar una exposición peligrosa a la luz láser visible.*

El aparato utiliza un diodo láser a baja potencia. No son notorios daños a los ojos humanos a consecuencia de una exposición de corta duración. Eviten de mirar fijo el rayo láser así como evitarían cualquiera otra fuente de luminosidad intensa, por ejemplo el sol. Además, eviten de dirigir el rayo láser hacia los ojos de un observador, también a través de superficies reflectantes como los espejos.

## 2.3 FCC COMPLIANCE - INFORMATION FOR THE USER



*This device complies with PART 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference which may cause undesired operation.*

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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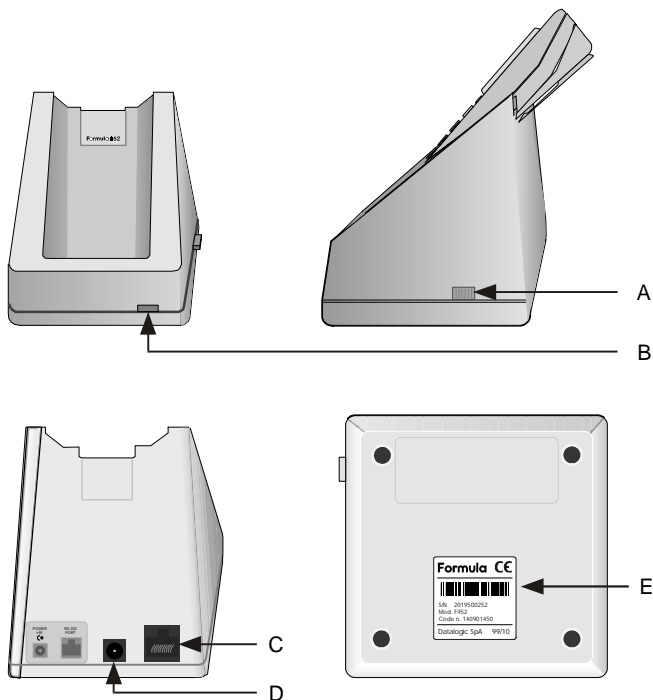
## 3 CONNECTION

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### 3.1 CRADLE

To make the F732 terminal operative, it is necessary to insert it in the Formula 952 Transceiver charger cradle which has previously been connected to the power supply and to a host computer with an available RS-232 serial line.

The following figure describes the F952 cradle:



Key:

- A) Cradle on/off switch
- B) Two color LED:  
Continuous green = F732 terminal not inserted or charge level being maintained  
Continuous red = recharging taking place
- C) RJ connector for connection to the host computer
- D) Power jack
- E) Cradle F952 identification label



**CAUTION**

*The use of cradles other than those expressly specified may damage the F732 terminal.*

## 3.2 CONNECTION TO THE HOST COMPUTER



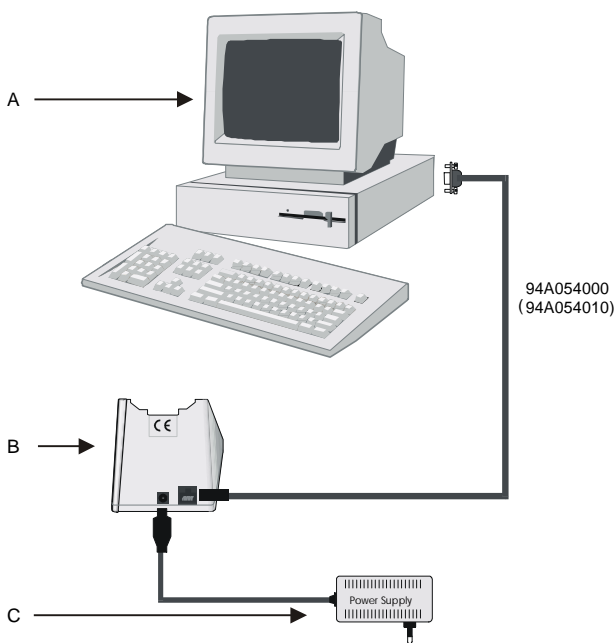
**CAUTION**

*Before proceeding with this phase, make sure that both the computer and the F732 terminal are switched off.*

### 3.2.1 RS-232 Connection

To connect the F952 cradle to the host computer, proceed as indicated below:

- 1- Connect the serial port of the host computer to cable 94A054000 for 9-pin connections or to cable 94A054010 for 25-pin connections;
- 2- Connect the other end of the same cable (RJ connector) to the RS-232 port of the cradle (point C in the previous figure);
- 3- Insert the power-supply plug into the jack on the base of the cradle (point D in the previous figure);
- 4- Attach the power supply to a power outlet
- 5- Turn on the cradle (point A in the previous figure) and the computer.
- 6- Put the F732 terminal into the cradle and, if necessary, wait for battery recharging.



## Key:

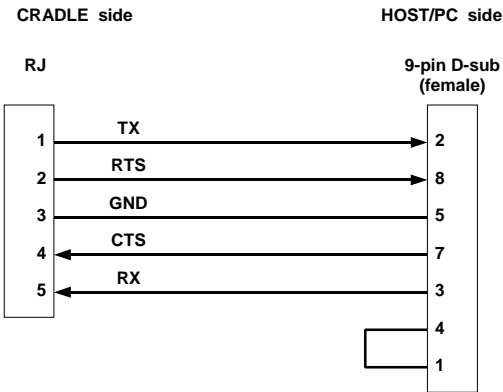
- A) Host computer
- B) Single cradle F952
- C) Power supply

### 3.3 CONNECTION CABLES

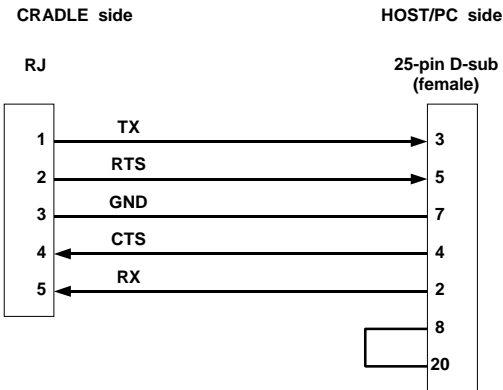
Several types of cables are available depending on the type of computer and connection.

The following cables are listed with their order number.

- **RS-232 Connection with PC/AT or compatible:  
cable 94A054000 (included with terminal)**



- **RS-232 Connection with PC/XT or compatible:  
cable 94A054010**





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## 4 USE AND OPERATION

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When an EasyGen™ application program is loaded onto the F732 terminal (either a Demo example or an application developed with EasyGen™ for Formula) to launch it, it is necessary to extract the F732 terminal from the cradle and press <SHIFT> and then the <UP ARROW> key.

If the barcode scanning function has been used in the application, scanning is possible.

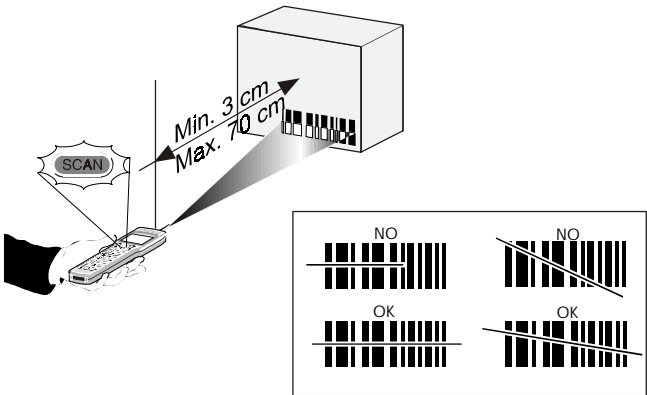
## 4.1 LOADING APPLICATION PROGRAMS

If you are using application programs for EasyGen™ (see par. 1.2 or par. 1.3) refer to chapter 6 of the EasyGen™ User's Manual.


If you are using applications developed with DS for Formula (see par. 1.3) refer to the "Tools" paragraph in the DS for Formula Manual.

## 4.2 BAR CODE SCANNING

Point the F732 terminal laser beam at the code from an appropriate distance and simultaneously press the <SCAN> key. The beam emitted by the laser must completely cover the barcode; the LED (and the acoustic signal, if activated) will indicate if the scan was carried out correctly.



### NOTE

*Throughout the operation of the application, the battery icon , and the time icon will always be activated, the latter in accordance with the setting of the F732 terminal internal clock.*

### 4.3 DESCRIPTION OF KEYS

Although EasyGen™ for Formula allows assigning customized functions to function keys, there are some standard functions common to all applications because they are implemented in the interpreter software.



**ATTENTION**

*Refer to chapter 6 "EasyGen™ Interpreter Program" of the EasyGen™ User's Manual for more details about the key functions.*



**NOTE**

*Every time a key is pressed, the F732 terminal remains turned on for a maximum of 20 seconds.*



**ARROW KEYS:** only available for the application when not in "Select or Data Edit" mode.



**SCAN KEY:** activates the laser for barcode scanning and turns on the F732 terminal when it is off.



**FUNCTION KEYS:** keys <F1>, <F2>, <F3> and <F4> are available for the loaded application. Function F5 activates the "Select" mode and only in this mode you can use F6, F7 and F8 functions:

<SHIFT> followed by <F1> = F5  
"Select" mode

<SHIFT> followed by <F2> = F6  
Data search

<SHIFT> followed by <F3> = F7  
Deletion

<SHIFT> followed by <F4> = F8  
Data display



**ESC KEY:** used in the “Data display” mode.



**SHIFT KEY:** Enables the entry of alphabetical characters (written in white on the keyboard) when followed by the pressing of a numeric key: for example if you want to enter the alphabetical character “A”, you have to press <SHIFT>+<7>.

The number of times the SHIFT key is pressed determines the choice of alphabetical character: for example if you want to enter the alphabetical character “N”, you have to press <SHIFT>+<SHIFT>+<5>, if you want to enter the alphabetical character “X”, you have to press <SHIFT>+<SHIFT>+<SHIFT>+<2> and so on.

The fourth time the SHIFT key is pressed, the SHIFT function is disabled. The SHIFT function can also be disabled by waiting for a time-out of 2 seconds after being pressed.



By pressing the <SHIFT> key followed by the <RIGHT ARROW> key, the graphic display’s contrast increases to the allowed maximum, and then returns to 0 value.



**NUMERIC KEYS:** allow the entry and display of the main numeric symbol. If the <SHIFT> has first been pressed, the choice of alternative alphabetic characters will be activated.



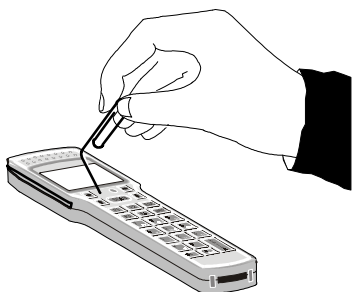
**BACKSPACE KEY:** deletes the last character entered.



**SPACE KEY:** allows the introduction of a blank space. If the <SHIFT> has been pressed previously, the choice of alternative characters will be activated.



**ENTER KEY:** allows validation of what has been typed.

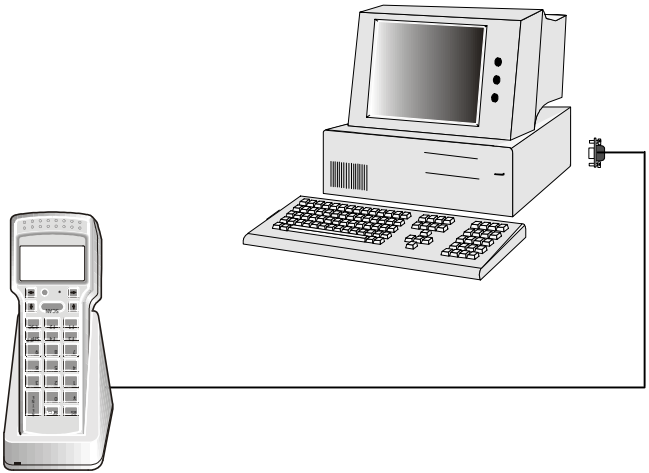


**SHIELDED RESET KEY:** it is activated by inserting a blunt object in the slot while simultaneously pressing the <SCAN> key.

## 4.4 DOWNLOADING DATA TO HOST

Data can be downloaded from the terminal to the host PC in different ways, depending on the application loaded:

- automatically, by simply inserting the terminal into the cradle;
- by direct operator intervention on the terminal or host computer;



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## 5 MAINTENANCE

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**NOTE**

*Rechargeable battery packs (NiCd) are not initially charged. Therefore the first operation to perform is to charge them in the appropriate cradle. See chapter 3 and the following paragraph "Charging the Batteries".*

### 5.1 CHARGING THE BATTERIES

Battery charge life depends on many variables but, under normal conditions, autonomy is more than enough for a day's work.

Information on the battery-charge status is provided by the dedicated icon on the display . The information provided by the icon is valid only when the F732 terminal is not inserted in the cradle.

Four different charge levels are given from a maximum value (all the icon segments full) to a minimum one which warns of pre-low-battery (icon empty and intermittently flashing).

Recharging should be made after using the terminal until the batteries are nearly flat.



**ATTENTION**

*When the F732 terminal display window shows the message "BATTERY LOW", wait until the F732 terminal is turned off before inserting it in the cradle.*

Recharge the terminal by simply inserting it into its cradle; Datalogic S.p.A. recommends a minimum uninterrupted recharging time of eight hours.

When batteries are new, or have not been recharged for a long time, it is necessary to perform two or three charge and discharge cycles (with complete use) before the batteries are able to reach their maximum capacity.



**NOTE**

*While the batteries are recharging, the color of the LED on the cradle changes from red to green. This switching takes place when 70-80% of the complete charge is reached.*



**ATTENTION**

*If the terminal remains inactive for a prolonged period such as two weeks, it is advisable to download all the stored data onto a computer and extract the battery pack.*



## 5.2 REPLACING THE BATTERIES

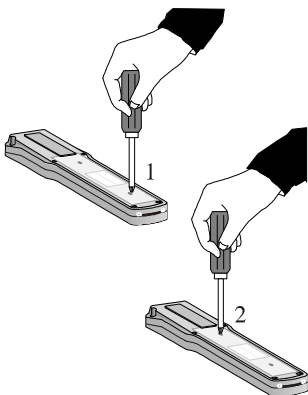


**ATTENTION**

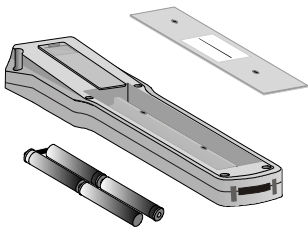
*Before proceeding, ensure that the terminal is switched off and that the data it contains has been downloaded onto the host computer.*

To replace the batteries correctly, proceed as follows.

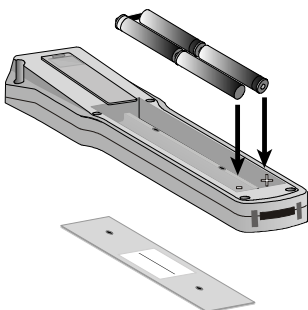
- 1- Turn over the F732 terminal and remove the two battery cover screws.



- 2- Lift the battery cover as shown in the figure and extract the old battery pack.



- 3- Replace the battery pack, making sure the batteries are inserted in the right direction as indicated on the cover.



- 4- Close the battery cover and tighten the screws.



**NOTE**

*Dispose of used batteries in accordance with the relevant laws in force.*

### 5.3 CLEANING THE TERMINAL

Clean the terminal from time to time with a slightly damp cloth.

Do not use alcohol, corrosive products or solvents.

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## 6 TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
When the <SCAN> button is pressed the terminal does not come on.	Flat batteries.	Recharge terminal.
	Batteries completely flat or broken.	Replace batteries.
When the <SCAN> button is pressed, the terminal display s the message BATTERY LOW and switches itself off.	Flat batteries.	Recharge terminal.
	Batteries completely flat or broken.	Replace batteries.
The terminal will not load the application program.	There is no power supply to the cradle.	Connect the power supply and switch on the cradle.
	The serial cable is not correctly connected.	Check the connection to the cradle and the serial port of the computer.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDY</b>
The terminal will not load the application program.	The terminal already contains an application program.	Follow instructions to cancel the application.
The terminal displays an error message FAULT CODE.	The application loaded is not suitable for the terminal in use. The terminal displays the message FAULT CODE P21C...	Load the correct application program.
	Other faults. The terminal displays an error message other than FAULT CODE P21C...	Contact your Datalogic representative for technical assistance.

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## 7 TECHNICAL FEATURES

<b>Optical</b>	
Light source	laser scanner, VLD source, 670 nm
Scan rate	36 ± 3 scan/sec
Minimum resolution	0.15 mm (5.90 mils)
Skew angle	± 65°
Pitch angle	± 55°
Depth of field	3 to 70 cm (1.18 to 27.55 in) (depends on code density)
<b>Electrical</b>	
Micro-controller	8 bits CMOS 8 KB bootstrap-loader PROM
Program memory	64 KB Flash-memory
Data RAM	128 KB SRAM
EEPROM	256 Bytes
Calendar/clock	quartz RTC, programmable date and time with automatic handling of leap years
Power supply	4 Nickel/Cadmium 250 mA/h batteries
Battery charger	Formula 952

<b>Physical</b>	
Technology	SMT (Surface Mounting Technology)
Dimensions (LxWxH)	165 x 56 x 32 mm (6.49 x 2.20 x 1.26 in)
Weight	184 gr. (6.49 oz.)
Buzzer	piezoelectric, programmable in frequency and duration
LED	red/green LED
Display	high contrast, LCD graphic display with 97 x 32 matrix
Keyboard	25 silicone rubber keys, reset button
<b>Environmental</b>	
Working temperature	0 °C to +50 °C (32 °F to +122 °F)
Storage temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Relative humidity	95% without condensation
Degree of protection	protected from dust and sprinkled water
Electrostatic charges	IEC 801-2 up to 15 KV on air
Drop resistance	IEC 68-2-32 up to 1 m (39 in) onto concrete
Laser safety	EN 60825 class 2 laser product
<b>Programming</b>	
Bar codes decoded	Standard 3/9 Interleaved 2/5 UPC - EAN Codabar (NW7) - Monarch (2/7) UPC only UPC/EAN + Addon 2 UPC/EAN + Addon 5 Extended 3/9 Italian pharmaceutical UPC - E only UPC 8 only UPC - A & EAN 13 only PAKO Code 128 EAN 128 Industrial 2/5 Matrix 2/5 Δ A IBM MSI Zellweger Code 93 ITF 14

<b>Programming</b>	
Operating modes	bootstrap loader application program
<b>Transmission</b>	
F952 interface	via optical transceiver with serial protocol
Cradle-Host interface	RS-232
Transmission speed	300 to 19200 bit/sec
Transmission protocol	program-definable
Transmission modes	full-duplex
Parity	mark, space, odd, even

# Formula®

## A F732 PRODUCTS AND ACCESSORIES

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- **Formula 732 Terminals**
  - **Formula 732 Pocket Laser Terminal**  
Hand-held programmable laser micro-terminal.
  
- **Cradles**
  - **Formula 952 Transceiver charger**  
Battery charger and optical transceiver for connections between terminal and host computer in RS-232.
  
- **Rubber Protection Cover**
  
- **Development Tools**
  - **EasyGen™**: software for producing applications to manage Formula terminals.
  - **DS for Formula + CA51 "C" Compiler**



**DATALOGIC S.p.A.,  
Via Candini, 2  
40012 - Lippo di Calderara  
Bologna - Italy**



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**F732, Wizard Laser Terminal**

e tutti i suoi modelli  
and all its models  
et tous ses modèles  
und seine modelle  
y todos sus modelos

sono conformi alle Direttive del Consiglio Europeo sottoelencate:  
are in conformity with the requirements of the European Council Directives listed below:  
sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:  
den nachstehenden angeführten Direktiven des Europäischen Rats:  
cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

<b>89/336/EEC EMC Directive</b>	e	<b>92/31/EEC, 93/68/EEC</b>	emendamenti successivi
	and		further amendments
	et		ses successifs amendements
	und		späteren Abänderungen
	y		sucesivas enmiendas

**73/23/EEC Low Voltage Directive**

Basate sulle legislazioni degli Stati membri in relazione alla compatibilità elettromagnetica ed alla sicurezza dei prodotti.

On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety.

Basées sur la législation des Etats membres relative à la compatibilité électromagnétique et à la sécurité des produits.

Über die Annäherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnetische Verträglichkeit und Produktsicherheit entsprechen.

Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

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Questa dichiarazione è basata sulla conformità dei prodotti alle norme seguenti:  
This declaration is based upon compliance of the products to the following standards:  
Cette déclaration repose sur la conformité des produits aux normes suivantes:  
Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht:  
Esta declaración se basa en el cumplimiento de los productos con las siguientes normas:

<b>EN 55022, August 1994:</b>	LIMITS AND METHODS OF MEASUREMENTS OF RADIO DISTURBANCE CHARACTERISTICS OF INFORMATION TECHNOLOGY EQUIPMENT (ITE)
<b>EN 55024, September 1998:</b>	INFORMATION TECHNOLOGY EQUIPMENT, IMMUNITY CHARACTERISTICS. LIMITS AND METHODS OF MEASUREMENTS
<b>EN 60825, March 1993:</b>	RADIATION SAFETY OF LASER PRODUCTS, EQUIPMENT CLASSIFICATION, REQUIREMENTS AND USER'S GUIDE

Lippo di Calderara, 11.05.2001

Ruggero Cacioppo  
  
Quality Assurance Supervisor